DAILY LESSON LOG OF M9GE-IVf-g1(Day 8)

School		Grade Level	Grade 9
Teacher		Learning Area	Mathematics
Teaching Date and Time		Quarter	Fourth
I. OBJECTIVES			
A. Content Standards	The learner demonstrates understanding of the basic concepts of trigonometry.		
B. Performance Standards	The learner is able to apply the concepts of trigonometric ratios to formulate and solve real-life problems with precision and accuracy.		
C. Learning Competencies/ Objectives	Learning Competency: Illustrates laws of sines and cosines. (M9GE-IVf-g1) Learning Objectives: 1. State the Law of Cosine. 2. Solve for the unknown parts of the triangle using the Law of Cosine. 3. Carefully listen to any volunteer and to the teacher during the day's lesson.		
II. CONTENT	Law of Cosine		
III. LEARNING RESOURCES			
A. References			
1. Teacher's Guide			
2. Learner's Materials	Page 497- 505		
3. Textbook pages			
4. Additional Materials from Learning Resource (LR) portal			
B. Other Learning Resources			
IV. PROCEDURES			
A. Review previous lesson or presenting the new lesson	The teacher will present one problem on the board. The students will solve the problem, the first one to show his/her solution to the teacher and got the answer correctly will write his/her solution on the board. 1. A triangular lot sits at the corner of two streets that intersect at an angle of $58^{0.}$ One street side of the lot is 32m and the other is 40m. How long is the back of the lot (the third side) to the nearest meter? Answer Key: 1. a = 36 m		
B. Establishing a purpose for the lesson	The teacher will tell the students that oblique triangles can also be solved using the Law of Cosines. This law states the following: The square of the length of one side is equal to the sum of the squares of the other two sides minus the product of twice the two sides and the cosine of the angle between them. The Law of Cosines can be used in the following situations: Two sides and the included angle are known Three sides are known		
C. Presenting examples/ instances of the new lesson	The teacher will present another problem for the students to answer. Find the lengths of the diagonals of the parallelogram. The lengths of two sides of a parallelogram are 12 inches and 15 inches, and one angle of the parallelogram measures 40^{0}.		
D. Discussing new concepts and practicing new skills #1	The teacher with the students discusses the answer in the previous example. Answer Key: 1. 10 inches and 25 inches		
E. Discussing new concepts and practicing new skills # 2			
F. Developing mastery (Leads to formative assessment3)	Another problem is being presented by the teacher. The students will answer this individually.		

	1. A bicycle race follows a triangular course. The three legs of the race are in order 2.3km, 5.9km and 6.2km. Find the angle between the starting leg to the finishing leg to the nearest degree. Answer Key: 1.A = 72^0
G. Finding practical applications of concepts and skills in daily living	
H. Making generalizations and abstractions about the lesson	The teacher summarizes the mathematical skills or principles used in the Law of Cosine through questions like: 1. What method/ strategies did you use to solve the problem? 2. Were you able to incorporate the Law of Cosines in the problem? Answer Key: 1. I used the Law of Cosine in solving the missing part of the triangle. 2. Yes.
I. Evaluating Learning	Work in pairs, the student will answer the following problem. Sketch the required triangle and use the Law of Cosines to solve it. 1. A boat leaves Kingston and heads due east for 25km. At the same time, a second boat travels in a direction 30^0 south of east from Kingston for 15km. How far apart are the boats at this moment when they reach their destination? Answer Key: 1. a = 14.2
J. Additional activities or remediation	
V. REMARKS	
VI. REFLECTION	
A. No. of learners who earned 80% of the evaluation	
B. No. of learners who require additional activities for remediation who scored below 80%	
C. Did the remediation lesson work? No. of learners who have caught up with the lesson.	
D. No. of learner who continue to require remediation.	
E. Which of my teaching strategies worked well? Why did these work?	
F. What difficulties did I encounter which my principal or supervisor can help me solve?	
G. What innovation of localized materials did I wish to share with other reachers.	

Prepared by:

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